

GNSS Session A Summary

Chairs: E. C. Pavlis, D. Thaller, C. Noll, V. Glotov

Take away messages

- Predominantly, users asked for more data (NP) on all satellites if possible;
- On a case-by-case basis:
 - GPS, long-term, all vehicles will need SLR support at a level to be mutually decided upon;
 - Galileo uses SLR to significantly improve SRP models and to quantify their clocks' behavior;
 - need increased priority, then more tracking than present
 - GLONASS needs SLR tracking for POD and force model improvement;
 - The LARGE campaigns showed SLR's high potential, but we "need at least TWICE the current number of NPs"
 - To exploit *full* SLR potential, we need more NPs per 'pass'

Take away messages (cont.)

- BeiDou – Multiple orbital configurations:
 - GEO, Inclined GEO, and up to 24 MEO;
 - Testing SRP models and POD;
 - SLR used for time transfer
- QZSS – special orbital configuration:
 - certain specific ILRS stations are particularly important within their program;
 - as the constellation is populated up to four s/c, needs will evolve and close coordination with ILRS will be required to fulfill their POD and calibration needs.

Overarching Message

- GNSS Constellations are the primary “disseminators” of the ITRF:
 - Orbits must be accurately centered, oriented and scaled in the current ITRF;
 - Need for continuous calibration/validation to ensure that users of the GNSS precise orbits will position themselves in the ITRF throughout space and time;
 - A natural co-location in space that needs to be exploited for the benefit of both techniques, the ITRF and the applications’ community